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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,872	12/19/2001	Byung Cheon Lee	HI-0062	8799
34610	7590	05/08/2006	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			LEE, ANDREW CHUNG CHEUNG	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 05/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/020,872

Applicant(s)

CHEON LEE, BYUNG

Examiner

Andrew C. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10, 12-15 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 5-9, 11, 16-18, 22 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION*****Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 2, 3, 4, 13, 19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5, 6, 7, 14, 16 of U.S. Patent No./Pub. No. 20030026266. Although the conflicting claims are not identical, they are not patentably distinct from each other because

Regarding claim 1, U.S. Patent No./Pub. No. 20030026266 to Choi discloses the limitation of an asynchronous transfer mode (ATM) cell switching method, comprising: a) dividing an input ATM adaptation layer 2 (AAL2) cell into AAL2 type common part sublayer (CPS) packets; b) sequentially storing the divided CPS packets into first storage areas and sequentially storing first identifiers of the first storage areas; c) reading the stored CPS packets in the order of the stored first identifiers, sequentially storing the read CPS packets in second storage areas used to route the CPS packets to each destination, and sequentially storing second identifiers of the second storage areas; and d) reading the CPS packets, in the order of the second identifiers, from the second storage areas and multiplexing the read CPS packets to generate a reconstructed AAL2 cell (see U.S. Patent No./Pub. No. 20030026266, page 4, column 1, claim 1).

Regarding claim 2, U.S. Patent No./Pub. No. 20030026266 to Choi discloses the limitation the ATM cell switching method of claimed wherein the divided CPS packets are stored in the first storage areas, in accordance with corresponding virtual paths/virtual channels (VPs/VCs) of the respective CPS packets; and the CPS packets read in step c) are stored in the second storage areas, in accordance with respective channel identifiers (CIDs) (see U.S. Patent No./Pub. No. 20030026266, page 4, column 2, claim 5).

Regarding claim 3, U.S. Patent No./Pub. No. 20030026266 to Choi discloses the

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limitation the ATM cell switching method of claimed further comprising: generating a first reference table that maps each of the first identifiers with the corresponding virtual path/virtual channel (VP/VC); and generating a second reference table that maps each of the second identifiers with the corresponding channel identifier (CID) (see U.S. Patent No./Pub. No. 20030026266, page 4, column 2, claim 6).

Regarding claim 4, U.S. Patent No./Pub. No. 20030026266 to Choi discloses the limitation the ATM cell switching method of claim 5, wherein the first and second identifiers are stored in the order that the CPS packets are stored to the corresponding first and second storage areas, respectively (see U.S. Patent No./Pub. No. 20030026266, page 4, column 2, claim 7).

Regarding claim 13, U.S. Patent No./Pub. No. 20030026266 to Choi discloses the limitation of an asynchronous transfer mode (ATM) cell switching system, comprising: a reassembly processing unit that divides an input ATM adaptation layer 2 (AAL2) cell into AAL2-type common part sublayer (CPS) packets; a first memory that sequentially stores the divided CPS packets into first storage areas and sequentially stores first identifiers of the first storage areas; a CPS packet switching unit that reads the stored CPS packets from the first storage areas in the order of the stored first identifiers and routes the read CPS packets to each destination; a second memory that sequentially stores the routed CPS packets into second storage areas and sequentially stores second identifiers of the second storage areas; and an assembly processing unit that reads the CPS packets from the second storage areas in the order of the second identifiers and multiplexes the CPS packets read from the second storage areas to generate a reconstructed AAL2 cell (see U.S. Patent No./Pub. No. 20030026266, page 5, column 1,

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claim 14).

Regarding claim 19, U.S. Patent No./Pub. No. 20030026266 to Choi discloses the limitation of an asynchronous transfer mode (ATM) cell switching system, comprising: first, second, third, and fourth memories that sequentially store ATM adaptation layer 2 (AAL2) type common part sublayer (CPS) packets and output the CPS packets in the order of their respective storage, wherein each memory has storage areas; a reassembly processing unit that divides an input AAL2 cell into the AAL2 type CPS packets, stores the divided CPS packets in different first storage areas of the first memory in accordance with corresponding virtual paths/virtual channels (VPs/VCs), and stores first identifiers of the different first storage areas in the second memory; a CPS packet switching unit that reads the CPS packets stored in the first memory in the order of the first identifiers stored in the second memory, stores the read CPS packets in different second storage areas of the third memory in accordance with corresponding destination channel identifiers (CIDs), and stores second identifiers of the second storage areas in the fourth memory; and an assembly processing unit that reads the CPS packets stored in the third memory in the order of the second identifiers stored in the fourth memory and multiplexes the read CPS packets to generate a reconstructed AAL2 cell (see U.S. Patent No./Pub. No. 20030026266, page 5, column 1, claim 16).

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 3, 4, 10, 12, 13, 14, 15, 19, 20, 21 are rejected under 35

U.S.C. 102(e) as being anticipated by Dempo (US 6594267 B1).

Regarding claim 1, Dempo discloses the limitation of an AAL2 switch for multicast in a mobile comprising: a plurality of receiver circuits (Fig. 4, element 8 ATM input interface) each receiving and demultiplexing an AAL2 packet for converting into at least one common part sublayer (CPS) packet (recited “extracts CPS-PDUs from ATM cells” as demultiplexing an AAL2 packet for converting into at least one common part sublayer (CPS) packet, column 2, lines 51 – 58); a plurality of memories that-configured to store said at least one CPS packet (recited “a first memory means, a second memory means” as a plurality of memories, column 3, lines 1 – 2, 14 – 16); and a plurality of transmitter circuits (recited “CPS packets processing means” as a plurality of transmitter circuits, column 3, lines 32 – 40) each coupled to the plurality of memories that search the plurality of memories, convert the searched CPS packet into an AAL2 packet by multiplexing, and transmit the AAL2 packet (recited “fills the CPS-PDU supplied from the CPS-PDU generation means in an ATM cell and outputs the ATM cell to one of its output lines” as convert the searched CPS packet into an AAL2 packet by multiplexing, and transmit the AAL2 packet, column 3, lines 35 – 44), wherein at least one memory stores an indication that said at least one CPS packet is to be output by two or more transmitter circuits (column 3, lines 32 – 35, 46 – 48).

Regarding claim 2, Dempo discloses the limitation of the AAL2 switch for multicast of claimed comprising: a first table coupled to each of the plurality of receiver circuits, for managing virtual path virtual channel (VPVC), channel identifier (CID) and routing information (recited “first memory means” as a first table, column 3, lines 9 – 16); and a second table coupled to each of the plurality of transmitter circuits, for managing storing conversion in formation including the VPVC and the CID (recited “second memory means” as a first table, column 3, lines 32 – 35).

Regarding claim 3, Dempo discloses the limitation of The AAL2 switch for multicast of claim 1, wherein a new virtual path virtual channel (VPVC) and a routing information for the transmitted AAL2 packet are allocated based on a VPVC and a channel identifier (CID) in the received AAL2 packet (recited “obtained the second internal address and the output CID” as a new virtual path virtual channel (VPVC) and a routing information, column 3, lines 23 – 30).

Regarding claim 4, Dempo discloses the limitation of the AAL2 switch for multicast of claimed wherein said at least one CPS packet and a new VPVC are stored according to the routing information (recited “ stores the CPS packets and second internal address” as said at least one CPS packet and a new VPVC are stored, column 3, lines 33 – 40).

Regarding claim 10, Dempo discloses the limitation of the AAL2 switch for multicast of claim 1, wherein the transmitter circuits each performs the searching process according to values set in a memory status field in the plurality of memories (recited “CPS-PDU processing section “as transmitter circuits, “empty flag” as memory status field, column 10, lines 17 – 25).



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Regarding claim 12, Dempo discloses the limitation of the AAL2 switch for multicast of claimed wherein when said at least one CPS packet is searched, the transmitter circuits generate a new channel identifier (CID) for the searched CPS packet by using a new virtual path virtual channel (VPVC) (recited “obtained the second internal address and the output CID” as a new virtual path virtual channel (VPVC) and a routing information, column 3, lines 23 – 30).

Regarding claim 13, Dempo discloses the limitation of a switching method of an AAL2 switch for multicast, the method comprising: converting a received AAL2 packet into a common part sublayer (CPS) packet by demultiplexing the received AAL2 packet (recited “extracts CPS-PDUs from ATM cells” as demultiplexing an AAL2 packet for converting into at least one common part sublayer (CPS) packet, column 2, lines 51 – 58); generating a new virtual path virtual channel (VPVC) and routing information based on VPVC and channel identifier (CID) in the received AAL2 packet (recited “obtained the second internal address and the output CID” as a new virtual path virtual channel (VPVC) and a routing information, column 3, lines 23 – 30); storing the CPS packet and the new VPVC according to the routing information in at least one of a plurality of storage areas in a memory (recited “second memory means stores the CPS packets and the second internal address” as storing the CPS packet and the new VPVC, column 3, lines 32 – 35); extracting the CPS packet by searching the plurality of storage areas; and transmitting an AAL2 packet by converting the extracted CPS packet into an AAL2 packet and transmitting the AAL2 packet (recited “fills the CPS-PDU supplied from the CPS-PDU generation means in an ATM cell and outputs the ATM cell to one of its output lines” as convert the searched CPS packet into an AAL2 packet by multiplexing, and

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transmit the AAL2 packet, column 3, lines 35 – 44), wherein at least one memory stores an indication that said at least one CPS packet is to be output by two or more transmitter circuits (column 3, lines 32 – 35, 46 – 48), and wherein a subset of transmitter circuits transmit said AAL2 packet for multicast responsive to said indication, and wherein said received AAL2 packet is received by a single receiver circuit (column 8, lines 37 – 48).

Regarding claim 14, Dempo discloses the limitation of the switching method of claimed wherein the converting through transmitting steps are repeatedly performed whenever the received AAL2 packet is inputted (Fig. 4, column 7, lines 64 – 67; column 8, lines 1 – 10).

Regarding claim 15, Dempo discloses the limitation of the switching method of claimed wherein a memory status field of the storage area indicates whether the CPS packet is stored (recited “CPS-PDU processing section “as transmitter circuits, “empty flag” as memory status field, column 10, lines 17 – 25).

Regarding claim 19, Dempo discloses the limitation of comprising: converting a received AAL2 packet into a CPS common part sublayer (CPS) packet by demultiplexing the received AAL packet (recited “extracts CPS-PDUs from ATM cells” as demultiplexing an AAL2 packet for converting into at least one common part sublayer (CPS) packet, column 2, lines 51 – 58); storing the CPS packet according to a routing information (recited “second memory means stores the CPS packets and the second internal address” as storing the CPS packet and the new VPVC, column 3, lines 32 – 35); converting the stored CPS packet into an AAL packet, wherein the stored CPS packet contains a field configured to indicate multicast transmission using a two or more of a plurality of output ports of the AAL switch (recited “ flag 1 indicating that there are one

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or more internal address” as a field configured to indicate multicast transmission, column 10, lines 62 – 67); and transmitting the AAL packet to a plurality of different destinations using said two or more output ports according to said field (column 3, lines 32 – 35, 46 – 48 ).

Regarding claim 20, Dempo discloses the limitation of the switching method of claimed wherein the routing information is generated based on a virtual path virtual channel (VPVC) and a channel identifier (CID) of the received AAL packet, and wherein a new VPVC is generated and stored based on the VPVC and the CID (recited “obtained the second internal address and the output CID” as a new virtual path virtual channel (VPVC) and a routing information, column 3, lines 23 – 30).

Regarding claim 21, Dempo discloses the limitation of the switching method of claimed wherein the received AAL2 packet is received through a single one of a plurality of input ports of the AAL2 switch (Fig. 4, element 8 ATM input interface, column 8, lines 60 – 63).

#### ***Allowable Subject Matter***

5. Claims 5, 6, 7, 8, 9, 11, 16, 17, 18, 22, 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1 – 23 have been considered but are moot in view of the new ground(s) of rejection.

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*Conclusion*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACL

May 03, 2006

  
RICKY Q. NGO  
SUPERVISORY PATENT EXAMINER